Central Valley Regional Water Quality Control Board
April 2009 Board Meeting

Staff Response to Comments
Donner Summit Public Utility District
Wastewater Treatment Plant
Tentative Waste Discharge Requirements and Cease and Desist Order

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The following are Regional Water Quality Control Board, Central Valley Region (Regional Water Board) staff responses to comments submitted by interested parties regarding the tentative Waste Discharge Requirements (National Pollutant Discharge Elimination System (NPDES) Permit No. CA0081621) and new Cease and Desist Order for the Donner Summit Public Utility District Wastewater Treatment Plant (WWTP). Public comments regarding the proposed NPDES Permit Renewal and new CDO were required to be submitted to the Regional Water Board office by 5:00 p.m. on 6 March 2009 in order to receive full consideration.

The Regional Water Board received comments regarding the proposed NPDES Permit renewal and CDO by the due date from the following interested parties:

- The Donner Summit Public Utility District (Discharger),
- The California Sportfishing Protection Alliance (CSPA),
- The South Yuba River Citizens League (SYRCL),
- General Public
    - Mr. Don Harkin,
    - Ms. Evelyn Soltero,
    - Mr. Joseph Gray and Ms. Kathryn Gray,
    - Mr. Jerry Bloom,
    - Mr. John Timmer,
    - Mr. James Wofford,
    - Ms. Karen Cox, and
    - Mr. John Leonard.

The submitted comments were accepted into the record, and are summarized below, followed by Regional Water Board staff responses.

COMMENTS FROM GENERAL PUBLIC

Numerous comments were submitted by members of the general public. Regional Water Board staff has consolidated similar comments from a group of commenters[1] and is providing one response.

COMMENT NO. 1: Estimated Stream Flow Not Accurate – Multiple commenters stated that the basis of the proposed dilution for nitrates and dichlorobromomethane using an estimated receiving water flow at the point of discharge is inaccurate. The

[1] Mr. Harkin, Ms. Soltero, Mr. Gray and Ms. Gray, Mr. Bloom, Mr. Timmer, Mr. Wofford, Ms. Cox, Mr. Leonard)

comments assert that a stream gauge should be installed at the point of discharge in order to obtain actual flow measurements instead of projected flow values. Consideration of dilution should be based on actual flow data in the vicinity of the discharge.

RESPONSE: Regional Water Board staff considered a dilution factor for nitrate and dichlorobromomethane using flow estimations based on flow gauge measurements at the Cisco Stream Gauge Station, and projecting the flow at the discharge point using a watershed proportioning approach. Staff concurs that the use of actual receiving water flow data in the vicinity of the point of discharge is the appropriate flow basis for a proposed dilution factor. The tentative NPDES permit requires the Discharger to construct a cross-stream diffuser if the Discharger chooses to conduct a mixing zone study. The proposed cross-stream diffuser is intended to be structurally designed with a flow measuring (weir) structure that provides for installation of a stream flow gauge. The proposed stream gauge will provide receiving water flow data at the point of discharge.

COMMENT NO. 2: No Dilution Credit Should be Allowed – One option of the tentative permit proposes dilution credits for nitrate and dichlorobromomethane. Several commenters state that the receiving water is ephemeral and there is incomplete mixing, therefore no dilution should be allowed. The comments continue to suggest dilution credits should not be considered until the proposed cross-stream diffuser is constructed and a mixing zone analysis is completed and approved. Comments state that the proposed dilution credits, based on estimated flow in the receiving water using Cisco stream gauge station, are not appropriate.

RESPONSE: The State Water Resources Control Board's *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (also referred to as the State Implementation Plan, or SIP) allows the granting of dilution credits for California Toxic Rule (CTR) constituents on the basis of mixing zone study results, if the discharge is incompletely mixed. Dichlorobromomethane is a CTR constituent. Therefore, Regional Water Board staff concurs that, without a mixing zone study, a dilution credit for dichlorombromomethane is not appropriate. Although the SIP requirements are not applicable to nitrate (not a CTR constituent), Regional Water Board staff believe that requiring a mixing zone study is also appropriate before granting a dilution credit for nitrate. (See also, Response to Discharger Comment No. 5.) Therefore, the tentative NPDES permit has been modified to remove the dilution credit for dichlorobromomethane and nitrate. A reopener provision has also been added to the tentative permit to allow the Regional Water Board to consider dilution if the Discharger chooses to install a cross-stream diffuser and submittal a mixing zone study (demonstrating where the effluent flow is completely mixed) for approval.

COMMENT NO. 3: Minimize Discharge Volume by Requiring Land Disposal Option – Discharges into the South Yuba River should be minimized by requiring the land disposal of effluent for as long as possible. Commenters requested a prohibition on discharge to the receiving water from 1 June until 31 October. Several other commenters suggested a period longer than the 30 September date in the tentative permit. Commenters requested the discharge prohibition to receiving waters include the month of July.

RESPONSE: The tentative permit prohibits discharge to surface waters from 1 August to 30 September and allows discharge of effluent to the South Yuba River only during the months of October through July and only when weather or snow conditions preclude land disposal. Regional Water Board staff fully support the land application option and believe the requirements in the tentative permit encourage land application to the maximum extent possible while still providing flexibility to the Discharger when soil conditions preclude disposal of treated effluent to land. Staff does not believe a prohibition set on hard dates before August or after September is appropriate due to the possibility that conditions for land disposal may not being suitable during the set time period, resulting in the Discharger not having a disposal alternative.

COMMENT NO. 4: Time for Complying with Final Effluent Limits too Long - Commenters stated that the length of time granted for complying with the final effluent limitations for ammonia, dichlorobromomethane, nitrate, aluminum, manganese, copper, cyanide, aldrin, alpha BHC, silver, and zinc are excessive. Suggestions were made that the length of any interim limits be no more than 24 months.

RESPONSE: Time schedules in NPDES permits and enforcement orders must be as short as possible. The tentative permit, as proposed, will require the Discharger to initiate a treatment plant upgrade and/or a mixing zone study (after installation of a cross-stream diffuser). The scope of such compliance projects include planning, Clean Water Act Section 401 certification, California Environmental Quality Act (CEQA) compliance, design, acquiring necessary funding, and construction. Expecting an upgrade project to be completed within 24 months is not realistic.

Hereby Ordered Item No. 2 in the proposed Cease and Desist Order (CDO) requires the Discharger to submit annual progress reports that detail the steps implemented towards achieving compliance with waste discharge requirements, including studies, construction progress, evaluation of measures implemented, and recommendations for additional measures as necessary to achieve full compliance by the final date. Hereby Ordered Item No. 3 in the CDO states that the interim limitations shall remain in effect until five years following the adoption date of the CDO, or when the Discharger is able to come into compliance with the final effluent limitation, whichever is sooner. The progress reported in the annual reports will assist the Regional Water Board to determine if the

Discharger is working in a diligent manner towards compliance in as short of a time period as possible.

COMMENT NO. 5: Interim Effluent Limitations are High – Commenters stated the interim effluent limitations are too high and should be reevaluated.

RESPONSE: The interim limitations established in the proposed CDO are performance-based limitations, established to serve as a "cap" to the level of pollutants currently discharged, yet assuring that, with the existing level of treatment, the Discharger is able to comply. Regional Water Board staff has examined existing monitoring data and have calculated the interim limitations in a manner consistent with other NPDES permits.

Data was reviewed covering several years to account for seasonal and annual variability of the discharge. As explained in Finding No. 15 of the tentative CDO, in developing the interim limitations, when there are ten sampling data points or more, sampling and laboratory variability is accounted for by establishing interim limits that are based on normally distributed data where 99.9% of the data points will lie within 3.3 standard deviations of the mean (*Basic Statistical Methods for Engineers and Scientists, Kennedy and Neville, Harper and Row*). When there are less than ten sampling data points available, the *Technical Support Document for Water Quality- Based Toxics Control* ((EPA/505/2-90-001), TSD) recommends a coefficient of variation of 0.6 be utilized as representative of wastewater effluent sampling. The TSD recognizes that a minimum of ten data points is necessary to conduct a valid statistical analysis. The multipliers contained in Table 3-1 and 5-2 of the TSD are used to determine a daily limitation based on a long-term average objective. In this case, the long-term average objective is to maintain, at a minimum, the current plant performance level. Thus, when there are less than ten sampling points for a constituent, interim limitations are based on 3.11 times the maximum observed effluent concentration to obtain the daily interim limitation (TSD, Table 5-2) or with a multiplier that statically projects a 99 percent probability (TSD, Table 3-1). If the statistically-projected interim limitation is less than the maximum observed effluent concentration, the interim limitation is established as the maximum observed concentration.

COMMENT NO. 6: Take into Account the Effects of Climate Change – Comments from Ms. Cox and Mr. Leonard stated that the effects of climate change and the likely decrease in the amount of water available should be taken into consideration.

RESPONSE: Global climate change is a concern of multiple federal, state and local agencies. The long-term effects of climate change are now beginning to be identified. The term of the proposed permit and CDO is five years. The short-term impacts of climate change to take place in the next five years have not been is not identified by any agency. Therefore, it is not possible to incorporate

unknown short-term climate change impacts in the proposed permit renewal. Accepted climate change information that becomes available within the next five years will be incorporated in a subsequent permit renewal as the Regional Water Board determines how to implement these factors into its regulatory orders.

DONNER SUMMIT PUBLIC UTILITIES DISTRICT (DISCHARGER) COMMENTS

The Discharger suggested minor editorial-related changes in its comment letter. The NPDES permit and CDO have been edited accordingly.

DISCHARGER COMMENT NO. 1: Cross Stream Diffuser - The Discharger states that the installation of the diffuser requires a California Environmental Quality Act (CEQA) analysis and a US Army Corps of Engineers Section 404 permit. The timing of the permit from the Corps of Engineers is beyond the control of the Discharger. The Discharger requests an additional one-half year, for a total of 3 and one half years, to comply with the requirement for the diffuser to be installed and operational.

RESPONSE: As stated in Response to General Public Comments No. 4, the scope of a compliance project, from planning through construction, involves milestones that require several years. Staff concurs that obtaining a Corps of Engineers certification for stream bed alteration may be a lengthy process and recommends that the Discharger initiates the application process immediately, and continue concurrently with project planning-related efforts. Staff estimates that the concurrent planning-related tasks, including obtaining a CWA 404 Certification, will require approximately three years of time, allowing two remaining years in the proposed time schedule for design and construction. As required by the California Water Code, the time frame is as short as possible, requiring the Discharger to proceed with a compliance project(s) in an expeditious manner.

DISCHARGER COMMENT NO. 2: Compliance with Groundwater Limitation as Written - The Discharger does not believe that it can comply with the groundwater limitation as proposed in the tentative permit. The effluent from the facility has more salinity than snow melt (the major source of groundwater in this area). It is the Discharger's understanding that some degradation of shallow groundwater occurs at all reclamation sites. The Discharger requests that the limitation be modified to be consistent with other permits where the discharger uses land application and reclamation.

RESPONSE: Regional Water Board staff concurs and has modified the groundwater limitation to be consistent with the groundwater limitation in other NPDES permits where discharge to groundwater takes place. The groundwater limitations in the tentative permit have been revised to read as follows:

The discharge shall not cause the groundwater to exceed water quality objectives, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance.

Release of waste constituents from any storage, treatment, or disposal component associated with the WWTP shall not, in combination with other sources of the waste constituents, cause groundwater within influence of the WWTP to contain waste constituents in concentrations in excess of natural background quality or that listed below, whichever is greater:

a. Total coliform organisms median of 2.2 MPN/100 mL over any seven-day period.
b. Chemical constituents in concentrations that adversely affect beneficial uses.

The Discharger is not changing its treatment or disposal method. Therefore, the existing degradation to ground water is unchanged. The modified groundwater limitations provides a "cap" on degradation by requiring that water quality objectives are not to be exceeded. The modified ground water limitations are effectively more stringent than the ground water limitations in the existing NPDES permit.

DISCHARGER COMMENT NO. 3: Modification to Monitoring Frequencies - The Discharger requests modification to the monitoring frequencies for temperature, pH, chromium VI, and priority pollutants. For temperature and pH, the Discharger requests the frequency be changed from once per day to twice per week. For chromium VI, the Discharger requests the frequency be change from once per month to once per year. For priority pollutant monitoring, the Discharger request for the frequency be change from once per year to once per quarter in the third year of the permit term only. Lastly, the Discharger is requesting the monitoring frequency for the receiving water be modified to once per week for all parameters except fecal coliform.

RESPONSE: Regional Water Board staff recognizes that monitoring costs are expensive, especially to a small discharger such as the community served by the Donner Summit PUD. Where appropriate, the frequency for constituents with existing effluent limitations has been maintained at the same frequency as in the existing permit. Additional monitoring has been included in the tentative permit to address compliance with new effluent limitations and/or pollutants associated with potential downstream algal grown concerns.

Typically, NPDES permits for minor (less than 1.0 mgd) discharges include quarterly priority pollutant monitoring during the third year of the permit term. However, the annual priority pollutant monitoring for this discharge is more applicable to the anticipated changing nature of the effluent as the Discharger proceeds with a compliance project(s). Priority pollutant monitoring conducted

only within the third year of the permit term may not capture successful treatment implemented through a compliance project(s) that is completed after the third year. Therefore, Regional Water Board staff does not believe one year of quarterly monitoring during the third year of the permit term will adequately represent the effluent with monitoring data needed for subsequent permit renewals. The tentative permit has been revised, however, to require that the annual priority pollutant monitoring be conducted during the first quarter that discharge is initiated, August through October, to capture the critical low flow periods of the receiving water and the time period in which domestic wastewater is not diluted by infiltration and inflow. The priority pollutant monitoring is proposed to be conducted for the effluent and background receiving water (upstream of the discharge location).

For Chromium VI, one of four samples resulted in a detected (and estimated) concentration that is greater than the water quality criteria. (See detailed response to CSPA Comment No. 9 below). Due to the uncertainty regarding the existence of Chromium VI in the effluent, in place of effluent limitations, quarterly monitoring has been established in the proposed NPDES permit, with a reopener provision. If future monitoring results indicate that the discharge has the reasonable potential to cause or contribute to an exceedance of a water quality standard, this Order may be reopened and effluent limitations added, as appropriate. If additional monitoring indicates that hexavalent chromium concentrations in the effluent have reasonable potential to exceed the CTR criterion, the permit may be reopened and appropriate effluent limitations placed in the permit.

Regional Water Board staff does not concur with the requested modification for pH and temperature monitoring in either the effluent or the receiving water. pH and temperature are conditions associated with the level of ammonia toxicity, and may vary significantly on a daily basis. The discharger requested that the maximum pH effluent limitation be reduced from 8.5 to 8, therefore resulting in a slightly higher fixed ammonia effluent limitation. The proposed daily pH monitoring will provide data that indicates the discharger is complying with the maximum pH limitation. The proposed daily temperature monitoring will provide corresponding ammonia-related data and further information that may contribute to the unknown reason for the downstream algal growth occurrences. Therefore, Regional Water Board staff does not concur with the request to reduce monitoring frequencies for temperature and pH.

The tentative permit, as issued in February 2009 for public review, contains additional constituents to be monitored, primarily based on the investigation of downstream algal blooms. Where appropriate, the monitoring frequencies in the tentative permit, for existing constituents and new constituents, are proposed to be maintained as in the existing NPDES permit, and at a level that is necessary

to ensure compliance with limitations established to protect aquatic life and human health.

DISCHARGER COMMENT NO. 4: The Estimated 30Q10 value is Low - The Discharger comments that the 30Q10 flow ratio (the highest 30-day average WWTP effluent flow to the lowest 30-average river flow experienced in the same calendar month during a 10 year period) in the tentative permit are too low. The Discharger states that its review of flow data indicates the 30Q10 flow ratio is 2.13 and not the 1.8 presented in the tentative permit.

RESPONSE: Regional Water Board staff concurs that there is an error in the calculation of the effluent limitations that use the 1.8 dilution ratio. However, for the ratio of the 30Q10 flows, Regional Water Board staff is not using the same degree of extrapolation as the Discharger is using in its calculations. Staff believes that since the flow data is from a stream gauge monitoring station ten miles downstream, it is important to remain conservative in the flow ratio calculation.

The tentative permit issued in February 2009 proposed dilution as the primary recommendation, with no dilution as a tentative option. After Regional Water Board staff consideration of all public comments, the agenda-version of the tentative permit is not proposing a dilution credit. However, the Regional Water Board may still consider granting dilution during the Regional Water Board hearing on this item. If the Board considers dilution for this discharge, staff will be proposing a dilution credit based on a 30Q10 flow ratio of 1.8.

Flow measurements proposed to be gathered at the discharge location will provide the flow information necessary to identify more accurate 30Q10 receiving water flow if the Discharger continues to pursue a dilution credit in a subsequent permit revision or renewal.

DISCHARGER COMMENT NO. 5: The NPDES Permit Options are Contrary to Discharger's Planning - The Discharger contends that installing a cross stream diffuser without dilution credits is a virtual financial impossibility. Immediate grant funding is not available to fund the cross-stream diffuser project. Without dilution credits, the Discharger has no viable means to achieve compliance with the final effluent limitations and that the amount of resulting fines, combined with the diffuser and plant upgrade project costs, may force the Donner Summit Public Utilities District into bankruptcy.

RESPONSE: To provide the Regional Water Board a full range of options for potential action during its public hearing for this item, the tentative NPDES Permit and CDO package provided the opportunity for the public to comment on dilution and no-dilution options. The tentative options included granting dilution credits for both dichlorobromomethane and nitrate, a dilution credit for only

dichlorobromomethane, or not granting dilution credits for either pollutant. Public comments on all the tentative options have been considered. Additionally, requirements in the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP) have been re-examined. Section 1.4.2 of the SIP discusses dilution credits and mixing zones for the discharge of priority pollutants. Currently, the discharge of effluent from the facility does not rapidly and completely mix with the receiving water until a point downstream. This is termed an incompletely-mixed discharge. The SIP states, "… Dilution credits and mixing zones for incompletely-mixed discharges shall be considered by the RWQCB only after the discharger has completed an independent mixing zone study and demonstrated to the satisfaction of the RWQCB that a dilution credit is appropriate. Mixing zone studies may include, but are not limited to, tracer studies, dye studies, modeling studies, and monitoring upstream and downstream of the discharge that characterize the extent of actual dilution." Dichlorobromomethane is a California Toxics Rule (CTR) pollutant and the requirements contained in the SIP apply. Therefore, a dilution credit cannot be granted for dichlorobromomethane until the Discharger submits a mixing zone study to the Regional Water Board.

To be consistent with policy and in recognition of the Donner Summit PUD wastewater treatment plant effluent's potential contribution to the excessive downstream algal growth, Regional Water Board staff is not recommending a dilution credit for nitrate until further mixing zone study information is submitted and approved. The Regional Water Board has discretion to consider other factors, such as financial impacts, that the proposed requirements place on the Discharger.

The proposed effluent limitation for nitrate (either with or without dilution) is based on the Department of Public Health Maximum Contaminant Level (MCL) to protect public health. The Regional Water Board has not determined whether the discharge is caused or contributed to the downstream excessive algal growth observed in May 2008, and will not decide this causation issue during the permit renewal. Regardless of what caused the algal bloom, staff believes it is appropriate to obtain additional information about assimilative capacity of the receiving water for biostimulatory substances and potential contribution by the discharge, before allowing a dilution credit for nitrate.

The tentative permit has been revised to include a reopener provision, allowing the Regional Water Board to consider revising the final effluent limitations in the NPDES permit upon evaluation of further dilution and mixing zone study information.

CALIFORNIA SPORTFISHING PROTECTION ALLIANCE (CSPA) COMMENTS

CSPA COMMENTS No. 1: Design Capacity and Flow. The technical basis for the proposed Permit limitations is elusive and does not contain the principal facts regarding the design capabilities of the treatment system as required by 40 CFR §124.8. The limitations do not appear to be based on the design flow of the wastewater treatment plant as required by 40 CFR § 122.45.

Response: Regional Water Board staff does not concur. The requirements in 40 CFR § 124.8 apply to those facilities required to contain fact sheets as part of its NPDES permit. The facility in question is designated as a minor facility where the requirements of 40 CFR § 124.7 apply unless the board finds the permit is the subject of wide-spread public interest or raises major issues. Regardless, the tentative permit fully complies with the requirements contained in 40 CFR § 124.7 and § 124.8. Attachment F of the permit lists the constituents being limited, the basis for the limitations, and shows the calculations used to determine final effluent limitations. In addition, the rationale for other permit requirements and conditions are explained.

As stated in 40 CFR § 122.45(b)(1) "…In the case of POTWs, permit effluent limitations, standards, or prohibitions shall be calculated based on design flow." The Report of Waste Discharge (ROWD) indicates that the design flow of the facility, as reported by the Discharger, is 0.52 mgd. Nowhere in the Code of Federal Regulations is a definition provided for "design flow" of a POTW. In the tentative permit, it clearly states that the regulated flow and mass limitations are based on an average dry weather flow of 0.52 mgd.

Staff acknowledges that the average dry weather flow represents the domestic wastewater flow from permanent year-round residences within the service area, and the facility receives additional domestic waste from winter-time tourism. The regulated flow of 0.52 mgd from the existing permit is maintained in the proposed permit renewal. However, the existing permit allowed 0.52 mgd as a monthly average, allowing flow fluctuations within a one-month time period. The tentative permit regulates the discharge flow as an average daily flow during the dry seasons of the month, maintaining no fluctuation in the base flow, and regulating mass limitations based on 5.2 mgd. It is not appropriate to impose further limitation on flow due to plant capabilities within a permit renewal. Such an action would appropriately be handled by a separate enforcement order.

CSPA COMMENTS No. 2: Mixing Zone. The proposed Permit contains an allowance for a mixing zone that does not comply with the requirements of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP), the Basin Plan, the Antidegradation Policy (Resolution 68-16) and the California Constitution.

RESPONSE: Regional Water Board staff proposed several options in the tentative permit package. The options included granting dilution credits for both dichlorobromomethane and nitrate, a dilution credit for only dichlorobromomethane, or not granting dilution credits for either pollutant. (Indirectly, these options include granting dilution for nitrate only.) Comments on the options were encouraged and have been considered. In addition, requirements in the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP) have been reviewed. Section 1.4.2 of the SIP discusses dilution credits and mixing zones for the discharge of toxic pollutants. Currently, the discharge of effluent from the facility does not rapidly and completely mix with the receiving water until a point downstream. This is termed an incompletely-mixed discharge. The SIP states, "… Dilution credits and mixing zones for incompletely-mixed discharges shall be considered by the RWQCB only after the discharger has completed an independent mixing zone study and demonstrated to the satisfaction of the RWQCB that a dilution credit is appropriate. Mixing zone studies may include, but are not limited to, tracer studies, dye studies, modeling studies, and monitoring upstream and downstream of the discharge that characterize the extent of actual dilution." Dichlorobromomethane is a California Toxics Rule (CTR) pollutant and the requirements contained in the SIP apply. Therefore, a dilution credit cannot be granted for dichlorobromomethane until the Discharger submits a mixing zone study to the Regional Water Board.

CSPA COMMENTS No. 3: Nitrate Effluent Limitations. The proposed Permit does not contain a protective Effluent Limitation for nitrate in violation of Federal Regulations 40 CFR 122.4 and the Antidegradation Policy.

RESPONSE: Any change in the effluent limitation for nitrate would solely be based on new information consistent with the regulations found in 40 CFR § 122.44(l)(2)(i)(B)(1). However, as discussed in Response to Discharger Comment No. 5 above, dilution credits for nitrate is not being recommended by Regional Water Board staff. The tentative permit has been modified to include a reopener provision, allowing the Regional Water Board to consider dilution for this discharge when a mixing zone study is submitted and approved.

CSPA COMMENTS No. 4: Lack of Turbidity Effluent Limitations. The proposed Permit replaces Effluent Limitations for turbidity which were present in the existing permit, contrary to the Antibacksliding requirements of the Clean Water Act and Federal Regulations, 40 CFR 122.44 (l)(1).

RESPONSE: CSPA comments that movement of effluent limitations for turbidity in the existing NPDES Permit to the Special Provisions (Construction, Operation, and Maintenance Specifications) in the tentative permit constitutes backsliding. Regional Water Board staff does not concur. As stated in the Fact Sheet,

turbidity testing is a quick way to monitor the effectiveness of treatment filter performance, and to signal the Discharger to implement operational procedures to correct deficiencies in filter performance. Higher effluent turbidity measurements do not necessarily indicate that the effluent discharge exceeds the water quality criteria/objectives for pathogens (i.e. bacteria, parasites, and viruses), which are the principal infectious agents that may be present in raw sewage. Therefore, turbidity is not a valid indicator parameter for pathogens. Furthermore, the existing turbidity limitations were not imposed to protect the receiving water from excess turbidity, and were not related to turbidity in the receiving water. Therefore, the existing turbidity limitations were not technology based effluent limitations or water quality based effluent limitations for either pathogens or turbidity.

Water quality based turbidity limits are not required because the effluent does not have a reasonable potential to cause or contribute to an exceedance of the applicable water quality objectives for turbidity. Therefore, operational requirements for turbidity are appropriately included as a Special Provision in the proposed permit, in place of effluent limitations. The operational turbidity requirements in proposed permit are an equivalent permit condition that is not less stringent than the turbidity limitations in previous Order. Therefore, the removal of the turbidity effluent limitations does not constitute backsliding.

Total coliform organisms, however, are an indicator of the level of pathogens in the effluent. Therefore, effluent limitations for total coliform organisms are necessary for protection of public health, and have been maintained as Title 22-level effluent limitations in the proposed NPDES permit.

CSPA COMMENTS No. 5: Chronic Toxicity Limitations. The proposed Permit does not contain enforceable Effluent Limitations for chronic toxicity and therefore does not comply with the Basin Plan, Federal Regulations, at 40 CFR 122.44 (d)(1)(i) and the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP).

RESPONSE: The chronic toxicity issue was addressed in State Water Board Order WQ 2008-0008 (City of Davis) adopted on 2 September 2008, and WQO 2003-0012 (Los Coyotes). With regard to the need for a numeric chronic toxicity effluent limit, WQO 2008-0008 states, “We have already addressed this issue in a prior order and, once again, we conclude that a numeric effluent limitation for chronic toxicity is not appropriate at this time.” However, the proposed Order requires an appropriate narrative effluent limitation for chronic toxicity. Based on this recent Water Quality Order, the proposed Order includes a narrative chronic toxicity effluent limitation in section IV.A.1.d. Consistent with the SIP and the Los Coyotes order, the proposed Order includes compliance determination language to implement the narrative limitation. This language states, “Compliance with the accelerated monitoring and TRE/TIE provisions of

Provision VI.C.2.a shall constitute compliance with effluent limitation IV.A.1.k for chronic whole effluent toxicity." (Provision VII.G.)

The Los Coyotes and City of Davis orders require narrative effluent limitations for chronic toxicity. The suggested language in the orders is, "There shall be no chronic toxicity in the effluent discharge." The orders, however, do not explain how to determine compliance with this limitation. Under the most literal interpretation, a result of even 1.1 chronic toxicity units (TUc) would be a violation of the narrative limitation. Reading the narrative limitation to mean that any excursion above 1 TUc violates the narrative limitation has the same practical effect as a numeric limitation of 1 TUc. This is not appropriate, because the State Water Board rejected the numeric approach in the Los Coyotes order. This literal reading also ignores dilution, making the limitation overly stringent. Disallowing dilution is inconsistent with effluent limitations for specific priority pollutants, which can include a dilution factor. Further, WET testing is imprecise by nature, and one sample is not necessarily indicative of chronic toxicity. For this reason, the SIP and the Los Coyotes order rely on toxicity reduction evaluation/toxicity identification evaluation (TRE/TIE) requirements to ensure a discharge does not cause or contribute to chronic toxicity.

Where WET testing indicates potential chronic toxicity, the SIP (and the proposed Order) requires additional accelerated monitoring. The lack of precision in WET testing could be addressed, in part, by using all the accelerated monitoring data to demonstrate compliance with the limitation. In that case, any time the monitoring demonstrated a need for a TRE/TIE, the discharger would be in violation of the narrative effluent limitation. This would be the case even if the discharger commenced a TRE/TIE and complied with all applicable requirements of the SIP and the proposed Order for addressing chronic toxicity. Again, however, this is indistinguishable from a numeric limit of 1 TUc. It is also inconsistent with the State Water Board's focus on the TRE/TIE as the way to determine appropriate limits and prevent chronic toxicity.

In order to assure consistency with the SIP and Los Coyotes orders, the accelerated testing and TRE/TIE requirements should be viewed as an integral part of the effluent limitation. In the Los Coyotes order, the State Water Board noted that best management practices (BMPs) may substitute for numeric effluent limitations when developing numeric limitations is infeasible. The board then concluded that numeric toxicity limitations are infeasible.[2] The TRE/TIE is the key to addressing chronic toxicity under the Los Coyotes approach. Relying on accelerated testing and the TRE/TIE to satisfy the narrative effluent limitation is a BMP-based approach and therefore consistent with the reasoning in the Los Coyotes order.

[2] Order No. WQ 2003-0012, pp. 9-10.

The State Water Board required the narrative effluent limitation in addition to BMPs because "NPDES permits must contain effluent limitations that will achieve compliance with water quality standards that have . . . . reasonable potential . . . ."[3] The intent of the effluent limitation was to "ensure that the requirements to perform a TRE/TIE and to eliminate toxicity are clear and enforceable."[4] The compliance determination language is consistent with the State Water Board's purpose for requiring the effluent limitation.

During the TRE/TIE process, the discharger is subject to the acute toxicity effluent limitation and a chronic toxicity receiving water limitation. (Permit, § V.A.) Taken together, these provisions allow the discharger time to address a newly-discovered chronic toxicity problem without violating the permit, consistent with the State Water Board's permitting approach for chronic toxicity.

Staff has modified the reopener language in Provision VI.C.1.d, as follows: "As a result of a Toxicity Reduction Evaluation (TRE), this Order may be reopened to include ~~a chronic toxicity limitation,~~ a new acute toxicity limitation, …" The deleted language is redundant, since the permit already includes a narrative chronic toxicity limitation, and the provision already includes separate language addressing a reopener for a numeric chronic toxicity limitation.

CSPA COMMENTS No. 6: Ground Water Monitoring Requirements. The proposed Permit fails to require groundwater monitoring which is necessary to assure compliance with the Groundwater Limitations and to qualify for exemption from CCR Title 27 and assure compliance with the Antidegradation Policy. The commenter states the permit contains groundwater limitations but that groundwater monitoring of the land application area is required to ensure compliance with the groundwater limitations is maintained.

Response: The subsurface geology of the sloped land application area may not support a ground water aquifer that is maintained at a known depth. Therefore, the installation of a groundwater monitoring well network, as implemented in flatter land disposal sites, may not be adequate at the subject site. However, Regional Water Board staff concurs that information is necessary to confirm compliance with ground water limitations. The tentative permit has been revised to require the Discharger to conduct a study as how to evaluate groundwater in the sloped land disposal area.

CSPA COMMENTS No. 7: Hardness. The proposed Permit establishes Effluent Limitations for metals based on the hardness of the effluent as opposed to the ambient upstream receiving water hardness as required by Federal Regulations, the California Toxics Rule (CRT, 40 CFR 131.38(c)(4)).

[3] *Id.*, p. 9.

[4] *Id.,* p. 10.

RESPONSE: In the proposed NPDES permit, the hardness-dependent metals criteria were established based on the reasonable worst-case ambient hardness as required by the SIP, the CTR and Order No. WQO 2008-0008 (City of Davis). The CTR and the SIP require the use of "receiving water" or "actual ambient" hardness, respectively, to determine effluent limitations for these metals. (SIP, § 1.2; 40 CFR § 131.38(c)(2), Table 4, note 4.) In some cases, the hardness of effluent discharges changes the hardness of the ambient receiving water. Where reliable, representative data are available, the hardness value for calculating effluent limitations can be the downstream receiving water, after mixing with the effluent (Order WQO 2008-0008, p. 11). The hardness values must also be protective under all flow conditions (*Id.*, pp. 10-11). As discussed below, scientific literature provides a reliable method for calculating protective effluent limitations for metals with hardness-dependent CTR criteria. This methodology produces effluent limitations that prevent these metals from causing receiving water toxicity, while avoiding effluent limitations that are unnecessarily stringent.

Effluent limitations for the discharge must be set to protect the beneficial uses of the receiving water for all discharge conditions using a reasonable worst-case condition. The SIP does not address how to determine hardness for application to the equations for the protection of aquatic life when using hardness-dependent metals criteria. It simply states, in Section 1.2, that the criteria shall be properly adjusted for hardness using the hardness of the receiving water. The CTR requires that, for waters with a hardness of 400 mg/L (as $CaCO_3$), or less, the actual ambient hardness of the surface water must be used. It further requires that the hardness values used must be consistent with the design discharge conditions for design flows and mixing zones. The CTR does not define whether the term "ambient," as applied in the regulations, necessarily requires the consideration of upstream as opposed to downstream hardness conditions. The Regional Water Board thus has considerable discretion in determining ambient hardness (Order WQ 2008-0008, p.10.). The City of Davis order allows the use of "downstream receiving water mixed hardness data" where reliable, representative data are available. (Id., p. 11.)

A 2006 study[5] evaluated the relationships between hardness and the CTR metals criteria as the effluent and receiving water mix. The 2006 study demonstrates that it is necessary to evaluate all discharge conditions (e.g. high and low flow conditions) when determining the appropriate hardness for calculating effluent limitations for hardness-dependent metals. Simply using the lowest recorded receiving water hardness may result in over or under protective effluent limitations and would not represent the reasonable worst-case hardness of the receiving water.

[5] Emerick, R.W.; Borroum, Y.; & Pedri, J.E., 2006. California and National Toxics Rule Implementation and Development of Protective Hardness Based Metal Effluent Limitations. WEFTEC, Chicago, Ill.

Discharge to South Yuba River – Discharge Point 001

As stated in Attachment F, "….As is discussed in detail below, using the methodology described in the 2006 Study, the Design Hardness for calculating protective hardness-dependent metals limits in this Order ranged from 20 mg/L to 23 mg/L (as $CaCO_3$), depending on the metal. The upstream receiving water hardness ranged from 19 mg/L to 22 mg/L (as $CaCO_3$). Therefore, the Design Hardnesses used in this Order are representative of hardness concentrations observed in the receiving water, which is consistent with the CTR and the SIP."

CSPA COMMENTS No. 8: Carbon Tetrachloride Effluent Limitations. The proposed Permit fails to include an Effluent Limitation for Carbon Tetrachloride as required by Federal Regulations 40 CFR 122.4 and the permit should not be adopted in accordance with California Water Code Section 13377.

RESPONSE: CSPA states that the one detected value of Carbon Tetrachloride in the analytical testing of the effluent triggers reasonable potential for the discharge to cause or contribute to an exceedance of the water quality criteria. Regional Water Board staff does not concur. As stated in the Fact Sheet, the CTR includes standards for the protection of human health based on a one-in-a-million cancer risk for carbon tetrachloride. Municipal and domestic supply is a beneficial use of the receiving stream. The carbon tetrachloride criteria for waters from which both water and organisms are consumed is 0.25 µg/L. The maximum observed effluent concentration was detected once out of four samples at an estimated concentration of 0.3 µg/L collected in June 2006. Three other samples are all non-detectable.

The minimum detection level for carbon tetrachloride is 0.1 ug/L. The criteria of 0.25 ug/L is between the detection level and the quantified value of 0.30 ug/L. The one sample detected, but does not quantify if the carbon tetrachloride concentrations is above or below the criteria. The Regional Water Board has discretion to conclude that data are inappropriate or insufficient to determine whether the discharge has a reasonable potential to cause or contribute to an exceedance of the water quality criteria. (SIP, § 1.2.) In this situation, the one detected value was an estimated value. Based on the limited number of samples, with all but one non-detect and the one an estimated value, Regional Water Board staff concluded that it is questionable whether reasonable potential exists. Regional Water Board staff believes that additional monitoring data is necessary to conduct a complete reasonable potential analysis.

Additional monitoring for carbon tetrachloride is required in the tentative permit to provide further information to determine whether an effluent limitation is necessary. The tentative permit also includes a reopener provision specific to carbon tetrachloride. If future monitoring results indicate that the discharge has the reasonable potential to cause or contribute to an exceedance of a water

quality standard, this Order may be reopened and effluent limitations added, as appropriate. If the monitoring results indicate that carbon tetrachloride does have reasonable potential to exceed the CTR criterion, the permit may be reopened and appropriate effluent limitations placed in the permit.

CSPA COMMENTS No. 9: Chromium VI. The proposed Permit fails to include an Effluent Limitation for Chromium VI as required by Federal Regulations 40 CFR 122.4 and the permit should not be adopted in accordance with California Water Code Section 13377.

RESPONSE: Similar to Comment No. 8 above, the commenter is stating that the one detected value of Chromium VI **(**hexavalent chromium) in the analytical testing of the effluent triggers reasonable potential for the discharge to cause or contribute to an exceedance of the water quality criteria. Regional Water Board staff does not concur. As discussed in the Fact Sheet, the CTR includes maximum 1-hour average and 4-day average total recoverable chromium VI concentrations of 16 µg/L and 11 µg/L, respectively, for the protection of freshwater aquatic life. The maximum observed effluent chromium VI concentration was detected, but not quantified, in one out of four samples, at a concentration of 20 µg/L (collected in June 2006). Three other samples were all non-detectable.

The presence of detectable concentrations of hexavalent chromium in a domestic wastewater discharge is unlikely, therefore Regional Water Board staff questions the representativeness of the one June 2006 sample analysis as the actual concentration in the effluent. Naturally, chromium typically exists in the trivalent state. Hexavalent chromium is most commonly produced by industrial processes. It is a strong oxidizer and can produce hard coatings, which is why it is often a component in paints for cars, boats and airplanes. According to the Occupational Safety and Health Administration (OSHA), are stainless steel fabrication, heavy duty coatings and paints (automobile, train car, airplane, boats, ships), electroplating and producers of chrome-based pigments. Welding (especially on stainless steel), spraying heavy-duty coatings and paints, and chrome plating are the primary applications affected. The Discharger does not currently receive wastewater flows from these types of industries or activities.

Due to the uncertainty regarding the existence of Chromium VI in the effluent, or the existence of a source of Chromium VI in the Discharger's service area, in place of effluent limitations, additional monitoring has been established for chromium VI in the proposed NPDES permit, with a reopener provision. If future monitoring results indicate that the discharge has the reasonable potential to cause or contribute to an exceedance of a water quality standard, this Order may be reopened and effluent limitations added, as appropriate. If additional monitoring indicates that hexavalent chromium concentrations in the effluent

have reasonable potential to exceed the CTR criterion, the permit may be reopened and appropriate effluent limitations placed in the permit.

CSPA COMMENTS No. 10: Electrical Conductivity (EC). Effluent Limitations for specific conductivity (EC) and manganese are improperly regulated as an annual average contrary to Federal Regulations 40 CFR 122.45 (d)(2) and common sense.

Response: Regional Water Board staff does not concur. The EC levels in the effluent are less than the 700 umhos/cm screening level used for protection of the most salt-sensitive crops. Therefore, reasonable potential for EC does not exist. However, for consistency with the Central Valley Water Board's approach to address salinity in the Region, the proposed NPDES Permit includes calendar annual average performance-based effluent limitation for EC to "cap" the discharge from exceeding current levels. Salinity, at high levels, poses long-term impacts to beneficial uses. Therefore, Regional Water Board staff believes it is practical to regulate salinity with long-term averaging periods. More frequent fluctuations of the salinity levels do not necessarily impact agricultural beneficial uses.

The manganese effluent limitation is based on the Department of Public Health (DPH) Maximum Contaminant Level (MCL) of 50 ug/L. The annual averaging period for the manganese limitation is consistent with the averaging period in which the DPH determines compliance with its regulations. Consequently, the averaging period for the manganese effluent limitation is consistent with the basis DPH intends to regulate this constituent for protection of public health.

CSPA COMMENTS No. 11: Settleable Solids. The proposed Permit contains no Effluent Limitations for settleable solids (SS) which are present in the existing NPDES Permit contrary to the Antibacksliding requirements of the Clean Water Act and Federal Regulations, 40 CFR 122.44 (l)(1).

Response: The commenter contends that the removal of effluent limitations in the proposed permit for settleable solids constitutes backsliding. Regional Water Board staff does not concur. The Fact Sheet for the proposed NPDES permit discusses the rationale for removing the suspended solids effluent limitations. Regional Water Board staff reviewed the Discharger's self-monitoring effluent data and considered the nature of the Facility's operations to determine if the discharge demonstrates reasonable potential to cause or contribute to an exceedance of an applicable water quality criteria or objectives. All monitoring results for settleable solids were non-detect. Regional Water Board staff concludes that the discharge does not demonstrate a reasonable potential to cause or contribute to an in-stream excursion above a water quality standard. Therefore, the proposed Order: (1) does not include effluent limitations, based on new information that was not available at the time the existing permit was

adopted, and (2) is consistent with anti-backsliding requirements of 40 CFR 122.44(l)(2)(i)(B)(1).

CSPA COMMENTS No. 12: Mass Based Effluent Limitations. The proposed Permit fails to contain mass-based effluent limits for Aluminum, Copper, Cyanide, Aldrin, Alpha BHC, Dichlorobromomethane, Silver, and Zinc as required by Federal Regulations 40 CFR 122.45(b).

RESPONSE: 40 CFR § 122.25(f) states the following:

"*Mass limitations. (1) All pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass except:*

(i) For pH, temperature, radiation, or other pollutants which cannot appropriately be expressed by mass;

(ii) When applicable standards and limitations are expressed in terms of other units of measurement; or

(iii) If in establishing permit limitations on a case-by-case basis under §125.3, limitations expressed in terms of mass are infeasible because the mass of the pollutant discharged cannot be related to a measure of operation (for example, discharges of TSS from certain mining operations), and permit conditions ensure that dilution will not be used as a substitute for treatment.

(2) Pollutants limited in terms of mass additionally may be limited in terms of other units of measurement, and the permit shall require the permittee to comply with both limitations."

40 CFR § 122.25(f)(1)(ii) states that mass limitations are not required when applicable standards are expressed in terms of other units of measurement. The numerical effluent limitations for aluminum, copper, cyanide, aldrin, alpha BHC, dichlorobromomethane, silver, and zinc in the proposed NPDES permit are based on water quality standards and objectives. These criteria are expressed in terms of concentration. Pursuant to 40 CFR 122.25(f)(1)(ii), expressing the effluent limitations in terms of concentration is in accordance with Federal Regulations. Therefore, mass based effluent limits are not required or necessary.

CSPA COMMENTS No. 13: EC Limitations. The proposed Permit fails to include a protective Effluent Limitation for electrical conductivity (EC) as required by Federal Regulations 40 CFR 122.44 and the permit should not be adopted in accordance with California Water Code Section 13377.

RESPONSE: Regional Water Board staff does not concur. The EC levels in the effluent are less than the 700 umhos/cm screening level used for protection of the most salt-sensitive crops. Therefore, reasonable potential for the effluent to cause or contribute to an instream excursion of water quality objectives for salinity does not exist. However, since the Facility discharges to the South Yuba River, which is ultimately tributary to the Sacramento – San Joaquin Delta, of additional concern is the salt contribution to Delta waters. For consistency with the Central Valley Water Board's approach to address salinity in the Region, the proposed NPDES Permit includes calendar annual average performance-based effluent limitation for EC to "cap" the discharge from exceeding current levels. Salinity, at high levels, poses long-term impacts to beneficial uses. Therefore, Regional Water Board staff believes it is practical to regulate salinity with long-term averaging periods. More frequent fluctuations of the salinity levels do not necessarily impact agricultural beneficial uses.

Therefore, the proposed Order includes an annual average effluent limitation for EC equal to the municipal water supply EC plus an increment of 500 µmhos/cm (or 700 µmhos/cm, which ever is less). Regional Water Board staff concludes that an annual average limitation is appropriate for this purpose.

CSPA COMMENTS No. 14: Administrative Civil Liability Penalties. The proposed Permit cites that administrative civil liability penalties (fines) were allowed to be diverted to "compliance projects" for this largely noncompliant facility. The proposed permit fails to cite the specific compliance projects or what the Discharger achieved. This is material to the public since the wastewater treatment plant does not appear capable of meeting discharge limitations.

Response: The above comment is compliance and enforcement related comment, which is outside of the scope of the proposed NPDES permit renewal hearing. The intention of the Compliance Summary section of the tentative permit is to document previous Regional Water Board actions related to the discharge.

The commenter may review ACL Order No. R5-2007-0528, cited in the tentative Order findings, which is available on the Regional Water Board's website (http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/nevada/r5-2007-0528_enf.pdf). Finding 18 of the ACL Order describes the compliance project as a new activated sludge treatment system.

SPECIFIC COMMENTS FROM MR. DON HARKIN

Harkin Comment No. 1: Biostimulation Study Standards. It is necessary to describe and justify the Biostimulation Study standards.

> **Response:** The Fact Sheet of the proposed permit explains the occurrence of downstream algal blooms in the South Yuba River in June 2008. There is no confirmed cause of the algal bloom. A Biostimulation Study requirement in the tentative permit requires the Discharger to gather information and data specific to the potential site-specific condition that may be causing or contributing to the algal growths. Including detailed standards and requirements for the study may prevent the site-specific investigations (for example, if the Discharger discovers other unexpected contributions of nutrients into the river) and adjustment necessary for the required study conclusions and recommendations. Instead, the tentative permit requires a work plan, that upon Regional Water Board staff approval, will serve as a required framework the Discharger will follow to conduct the study. This approach allows the Discharger to further examine site-specific conditions or situations not originally considered, resulting in a comprehensive study.

SPECIFIC COMMENTS FROM MR. JOSEPH GRAY AND MS. KATHRYN GRAY

GRAY COMMENT NO. 1: Phosphate Control is Necessary.

> **Response:** Regional Water Board staff has included phosphate monitoring of both the effluent and receiving water, in the tentative permit. In addition, the tentative permit requires the Discharger to perform a biostimulatory study, which includes identifying potential growth inducing constituents in the effluent that may be causing or contributing to the downstream algal growths. If effluent limitations for phosphate are shown to be necessary, the permit may be reopened and effluent limitations established.

GRAY COMMENT NO. 2: Nitrate Limit Calculations are Incorrect. The commenter stated that the limitation calculated for nitrate seems incorrect. Instead of the final effluent limitation of 18 mg/L in the tentative permit, the commenter suggested the limitation should be 28 mg/L. The commenter also recommends establishing the limitation at 20 mg/L.

> **Response:** Regional Water Board staff agree that there was a technical error in the calculation of the final effluent limitation for nitrate, if a dilution factor of 1.8 is included. According to the SIP procedures, a proposed nitrate limit, if considered by the Regional Water Board, is calculated as follows:

Effluent Limitation = (1+D) X Criteria Value.

In this case, D is equal to the dilution credit which is 1.8. The criteria value is 10 mg/L, therefore, if dilution is allowed, the effluent limitation should be:

Effluent Limitation = (1+1.8) X 10 mg/L
Effluent Limitation = (2.8) X 10 mg/L
Effluent Limitation = 28 mg/L

GRAY COMMENT NO. 3: Effluent Limitations for Nitrate and Dichlorobromomethane Should be Established at the Edge of the Mixing Zone. The commenter stated that if dilution credits are allowed, nitrate and dichlorobromomethane levels should be measured at the edge of the mixing zone to ensure the desired after-dilution levels are met.

Response: The calculation of final effluent limitations where dilution credits are granted take into account assimilative capacity and flow in the receiving water. The final effluent limitations, regardless of whether dilution is allowed, are established as end-of-pipe limitations. Therefore, the point of compliance for all effluent limitations, including those in which dilution may be factored in, is located at the point of discharge. The downstream R-2 receiving water monitoring for nitrate will gather additional data regarding nitrate concentrations in the receiving water downstream of the Discharger.

GRAY COMMENT NO. 4: Groundwater Not Adequately Protected.

Response: See the response to CSPA Comment Number 6.

GRAY COMMENT NO. 5: Plant Upgrade Cost Consideration. The commenter states that the Regional Water Board should not reduce water quality specifications based on potential costs to the Discharger to come into compliance with effluent limitations and requirements.

Response: Regional Water Board staff establish NPDES permit limitations, conditions, and requirements for point source discharges to surface waters in accordance with procedures and requirements established in both Federal and State regulations/policy that govern this process. There are instances where regulatory requirements state cost must taken into consideration (technology-based effluent limitations, see 40 CFR § 125.3). There are other instances where costs are not to be considered (water quality-based effluent limitations, see 40 CFR Part 131). Regional Water Board staff support cost effective means to ensure compliance with the requirements in all NPDES permits in the Central Valley Region. Ultimately, the Discharger has the discretion to select the method of compliance with requirements in its NPDES permit and enforcement order(s).

SPECIFIC COMMENTS FROM MR. JAMES WOFFORD

WOFFORD COMMENT NO. 1: The Nitrate Limitation Constitutes Backsliding.

Response: The agenda-version of the tentative permit has been modified to not propose dilution for nitrate. Therefore, the tentative permit includes a nitrate effluent limitation that is the same as the limitation in the existing permit. If, however, the Regional Water Board chooses to consider adoption of the previously proposed nitrate effluent limitation that allows dilution, such a limitation does not violate backsliding provisions because the dilution is based on new flow information from the Cisco monitoring station that was not considered at the time of adoption of the existing permit. The use of new information as a basis for a less-stringent requirement is in accordance with anti-backsliding policy and regulations. In addition, Clean Water Act section 303(d)(4) allows less stringent effluent limitations where the receiving water is not a non-attainment water and the revised limitation is consistent with antidegradation requirements. Mixing zones do not violate state or federal antidegradation policies. (Memo from William Attwater to Regional Board Executive Officers (10/7/87), p. 2; *EPA Water Quality Standards Handbook 2d*., §§ 4.4, 4.4.4, and Appendix G (Questions and Answers), p. 2.) Water quality standards are not required to be met within mixing zones. Since mixing zones are consistent with antidegradation requirements, section 303(d)(4) allows relaxed effluent limitations based on mixing zones.